

ATCH

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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/246,451DATE: 06/10/1999
TIME: 15:52:35

Input Set: I246451.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

ENTERED

#6

1 <110> APPLICANT: Arnold, Frances H.
2 Joo, Hyun
3 Lin, Zhanglin
4 <120> TITLE OF INVENTION: Oxygenase Enzymes and Screening Method
5 <130> FILE REFERENCE: 9373/1E827-US1
6 <140> CURRENT APPLICATION NUMBER: US/09/246,451
7 <141> CURRENT FILING DATE: 1999-02-09
8 <160> NUMBER OF SEQ ID NOS: 19
9 <170> SOFTWARE: FastSEQ for Windows Version 3.0
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13 <213> ORGANISM: E. coli
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16 agcaaggcac ttgaactggt caaggcagga gcactgatca aaccctgat cgactccact 120
17 ctttagccaa cccgcgttcc aggagaacaa caacaatgac gactgaaacc atacaaagca 180
18 acgccaatct tgccctctg ccaccccatg tgccagagca cctggtattc gacttcgaca 240
19 tgtacaatcc gtcgaatctg tctgcggcg tgccaggaggc ctgggcagtt ctgcaagaat 300
20 caaacgtacc ggatctggtg tggactcgct gcaacggcgg aacttggtac gccactcgcg 360
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22 tccctcgatga agccggcgaa gcctacgact tcattcccac ctcgatggat ccgcccgagc 480
23 agcgccagtt tcgtgcgctg gccaaaccaag tgggtggcat gccggtggtg gataagctgg 540
24 agaaccggat ccaggagctg gcctgctcgc tgatcgagag cctgcgcccg caaggacagt 600
25 gcaacttcac cgaggactac gccgaaccct tcccgatagc catcttcagt ctgctcgag 660
26 gtctaccgga agaagatatc ccgcacttga aatacctaag ggatcagatg acccgtccgg 720
27 atggcagcat gaccttcgca gaggccaagg aggcgtcta cgactatctg ataccgatca 780
28 tcgagcaacg caggcagaag ccgggaaccg acgctatcag catcgttgcc aacggccagg 840
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30 gcggcctgga tacggtggtc aatttcctca gcttcagcat ggagttcctg gccaaaagcc 960
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32 tactccggcg cttctcgctg gttgccgatg gccgcatact cactccgat tacgagtttc 1080
33 atggcggtgca actgaagaaa ggtgaccaga tcctgctacc gcagatgctg tctggcctgg 1140
34 atgagcgcgaa aaacgcctgc ccgatgcacg tcgacttcag tcgcaaaaag gtttcacaca 1200
35 ccacctttgg ccacggcagc catctgtgcc ttggccagca cctggcccgc cgggaaatca 1260
36 tcgtcaccct caaggaatgg ctgaccagga ttcctgactt ctccattgcc ccgggtgccc 1320
37 agattcagca caagagcggc atcgtcagcg gcgtgcaggc actccctctg gtctgggatc 1380
38 cggcgactac caaagcggta ta 1402
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40 <211> LENGTH: 414
41 <212> TYPE: PRT
42 <213> ORGANISM: E. coli
43 <400> SEQUENCE: 2
44 Thr Thr Glu Thr Ile Gln Ser Asn Ala Asn Leu Ala Pro Leu Pro Pro

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45	1	5	10	15
46	His Val Pro	Glu His Leu Val	Phe Asp Phe Asp Met	Tyr Asn Pro Ser
47		20	25	30
48	Asn Leu Ser	Ala Gly Val Gln	Glu Ala Trp Ala Val	Leu Gln Glu Ser
49		35	40	45
50	Asn Val Pro	Asp Leu Val Trp	Thr Arg Cys Asn Gly	Gly His Trp Ile
51		50	55	60
52	Ala Thr Arg	Gly Gln Leu Ile	Arg Glu Ala Tyr Glu	Asp Tyr Arg His
53		65	70	75
54	Phe Ser Ser	Glu Cys Pro Phe	Ile Pro Arg Glu Ala	Gly Glu Ala Tyr
55		85	90	95
56	Asp Phe Ile	Pro Thr Ser Met	Asp Pro Pro Glu Gln	Arg Gln Phe Arg
57		100	105	110
58	Ala Leu Ala	Asn Gln Val Val	Gly Met Pro Val Val	Asp Lys Leu Glu
59		115	120	125
60	Asn Arg Ile	Gln Glu Leu Ala	Cys Ser Leu Ile Glu	Ser Leu Arg Pro
61		130	135	140
62	Gln Gly Gln	Cys Asn Phe Thr	Glu Asp Tyr Ala Glu	Pro Phe Pro Ile
63		145	150	155
64	Arg Ile Phe	Met Leu Leu Ala	Gly Leu Pro Glu Glu	Asp Ile Pro His
65		165	170	175
66	Leu Lys Tyr	Leu Thr Asp Gln	Met Thr Arg Pro Asp	Gly Ser Met Thr
67		180	185	190
68	Phe Ala Glu	Ala Lys Glu Ala	Leu Tyr Asp Tyr Leu	Ile Pro Ile Ile
69		195	200	205
70	Glu Gln Arg	Arg Gln Lys Pro	Gly Thr Asp Ala Ile	Ser Ile Val Ala
71		210	215	220
72	Asn Gly Gln	Val Asn Gly Arg	Pro Ile Thr Ser Asp	Glu Ala Lys Arg
73		225	230	235
74	Met Cys Gly	Leu Leu Leu Val	Gly Gly Leu Asp Thr	Val Val Asn Phe
75		245	250	255
76	Leu Ser Phe	Ser Met Glu Phe	Leu Ala Lys Ser Pro	Glu His Arg Gln
77		260	265	270
78	Glu Leu Ile	Glu Arg Pro Glu	Arg Ile Pro Ala Ala	Cys Glu Glu Leu
79		275	280	285
80	Leu Arg Arg	Phe Ser Leu Val	Ala Asp Gly Arg Ile	Leu Thr Ser Asp
81		290	295	300
82	Tyr Glu Phe	His Gly Val Gln	Leu Lys Lys Gly Asp	Gln Ile Leu Leu
83		305	310	315
84	Pro Gln Met	Leu Ser Gly Leu	Asp Glu Arg Glu Asn	Ala Cys Pro Met
85		325	330	335
86	His Val Asp	Phe Ser Arg Gln	Lys Val Ser His Thr	Thr Phe Gly His
87		340	345	350
88	Gly Ser His	Leu Cys Leu Gly	Gln His Leu Ala Arg	Arg Glu Ile Ile
89		355	360	365
90	Val Thr Leu	Lys Glu Trp Leu	Thr Arg Ile Pro Asp	Phe Ser Ile Ala
91		370	375	380
92	Pro Gly Ala	Gln Ile Gln His	Lys Ser Gly Ile Val	Ser Gly Val Gln
93		385	390	395
94	Ala Leu Pro	Leu Val Trp Asp	Pro Ala Thr Thr Lys	Ala Val

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109	<211> LENGTH: 27			
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115	<211> LENGTH: 29			
116	<212> TYPE: DNA			
117	<213> ORGANISM: E. coli			
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121	<211> LENGTH: 24			
122	<212> TYPE: DNA			
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124	<400> SEQUENCE: 7			
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144	<210> SEQ ID NO 11			

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159   Phe Ser Ser Glu Cys Pro Phe Ile Pro Arg Glu Ala Gly Glu Ala Tyr
160         85          90          95
161   Asp Phe Ile Pro Thr Ser Met Asp Pro Pro Glu Gln Arg Gln Phe Arg
162       100         105         110
163   Ala Leu Ala Asn Gln Val Val Gly Met Pro Val Val Asp Lys Leu Glu
164     115         120         125
165   Asn Arg Ile Gln Glu Leu Ala Cys Ser Leu Ile Glu Ser Leu Arg Pro
166     130         135         140
167   Gln Gly Gln Cys Asn Phe Thr Glu Asp Tyr Ala Glu Pro Phe Pro Ile
168    145         150         155         160
169   Arg Ile Phe Met Leu Leu Ala Gly Leu Pro Glu Glu Asp Ile Pro His
170         165         170         175
171   Leu Lys Tyr Leu Thr Asp Gln Met Thr Arg Pro Asp Gly Ser Met Thr
172       180         185         190
173   Phe Ala Glu Ala Lys Glu Ala Leu Tyr Asp Tyr Leu Ile Pro Ile Ile
174     195         200         205
175   Glu Gln Arg Arg Gln Lys Pro Gly Thr Asp Ala Ile Ser Ile Val Ala
176     210         215         220
177   Asn Gly Gln Val Asn Gly Arg Pro Ile Thr Ser Asp Glu Ala Lys Arg
178    225         230         235         240
179   Met Cys Gly Leu Leu Leu Val Gly Gly Leu Asp Thr Val Val Asn Phe
180         245         250         255
181   Leu Ser Phe Ser Met Glu Phe Leu Ala Lys Ser Pro Glu His Arg Gln
182     260         265         270
183   Glu Leu Ile Glu Arg Pro Glu Arg Ile Pro Ala Ala Cys Glu Glu Leu
184     275         280         285
185   Leu Arg Arg Phe Ser Leu Val Ala Asp Gly Arg Ile Leu Thr Ser Asp
186     290         295         300
187   Tyr Glu Phe His Gly Val Gln Leu Lys Lys Gly Asp Gln Ile Leu Leu
188    305         310         315         320
189   Pro Gln Met Leu Ser Gly Leu Asp Glu Arg Lys Asn Ala Cys Pro Met
190         325         330         335
191   His Val Asp Phe Ser Arg Gln Lys Val Ser His Thr Thr Phe Gly His
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193   Gly Ser His Leu Cys Leu Gly Gln His Leu Ala Arg Arg Glu Ile Ile
194     355         360         365

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195      Val Thr Leu Lys Glu Trp Leu Thr Arg Ile Pro Asp Phe Ser Ile Ala
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197      Pro Gly Ala Gln Ile Gln His Lys Ser Gly Ile Val Ser Gly Val Gln
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204  <213> ORGANISM: E. coli
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209          20                      25                      30
210      Asn Leu Ser Ala Gly Val Gln Glu Ala Trp Ala Val Leu Gln Glu Ser
211          35                      40                      45
212      Asn Val Pro Asp Leu Val Trp Thr Arg Cys Asn Gly Gly His Trp Ile
213          50                      55                      60
214      Ala Thr Arg Gly Gln Leu Ile Arg Glu Ala Tyr Glu Asp Tyr Arg His
215          65                      70                      75                      80
216      Phe Ser Ser Glu Cys Pro Phe Ile Pro Arg Glu Ala Gly Glu Ala Tyr
217          85                      90                      95
218      Asp Phe Ile Pro Thr Ser Met Asp Pro Pro Glu Gln Arg Gln Phe Arg
219          100                     105                     110
220      Ala Leu Ala Asn Gln Val Val Gly Met Pro Val Val Asp Lys Leu Glu
221          115                     120                     125
222      Asn Arg Ile Gln Glu Leu Ala Cys Ser Leu Ile Glu Ser Leu Arg Pro
223          130                     135                     140
224      Gln Gly Gln Cys Asn Phe Thr Glu Asp Tyr Ala Glu Pro Phe Pro Ile
225          145                     150                     155                     160
226      Arg Ile Phe Met Leu Leu Ala Gly Leu Pro Glu Glu Asp Ile Pro His
227          165                     170                     175
228      Leu Lys Tyr Leu Thr Asp Gln Met Thr Arg Pro Asp Gly Ser Met Thr
229          180                     185                     190
230      Phe Ala Glu Ala Lys Glu Ala Leu Tyr Asp Tyr Leu Ile Pro Ile Ile
231          195                     200                     205
232      Glu Gln Arg Arg Gln Lys Pro Gly Thr Asp Ala Ile Ser Ile Val Ala
233          210                     215                     220
234      Asn Gly Gln Val Asn Gly Arg Pro Ile Thr Ser Asp Glu Ala Lys Arg
235          225                     230                     235                     240
236      Met Cys Gly Leu Leu Leu Val Gly Gly Leu Asp Thr Val Val Asn Phe
237          245                     250                     255
238      Leu Ser Phe Ser Met Glu Phe Leu Ala Lys Ser Pro Glu His Arg Gln
239          260                     265                     270
240      Glu Leu Ile Glu Arg Pro Glu Leu Ile Pro Ala Ala Cys Glu Glu Leu
241          275                     280                     285
242      Leu Arg Arg Phe Ser Leu Val Ala Asp Gly Arg Ile Leu Thr Ser Asp
243          290                     295                     300
244      Tyr Glu Phe His Gly Val Gln Leu Lys Lys Gly Asp Gln Ile Leu Leu

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Line ? Error/Warning

Original Text
